

EXHIBIT 5

DECLARATION OF KAVITA BALA, PH.D.

I, Kavita Bala, Ph.D., declare as follows:

1. I have been the Provost of Cornell University (“Cornell” or the “University”) since January 1, 2025. I previously served as the inaugural Dean of the Cornell Ann S. Bowers College of Computing and Information Science. I am a computer scientist specializing in research on artificial intelligence, computer vision, and computer graphics. I am a Fellow of the Association for Computing Machinery (ACM), a Fellow of the Special Interest Group on Computer Graphics (SIGGRAPH) Academy, a recipient of the SIGGRAPH Computer Graphics Achievement Award, and a former Editor-in-Chief of the journal ACM Transactions on Computer Graphics. I am the author of more than 100 peer-reviewed publications. I make this declaration in support of the Plaintiffs’ Complaint in this matter and the forthcoming Emergency Motion for a Temporary Restraining Order.

2. I have personal knowledge of the contents of this declaration, or have knowledge of the matters based on my review of information and records gathered by Cornell personnel, and could testify thereto.

3. In my role, I am the University’s chief academic officer and chief budget officer and serve as the Cornell President’s first deputy officer. I oversee all academic programs and units of the University, other than those reporting to the Provost for Medical Affairs.

4. The federal government has selected Cornell to conduct a wide variety of vital research on behalf of United States citizens, funded in part by agency awards, cooperative agreements, and contracts from across the federal government, including but not limited to the Department of Energy (“DOE”). For Cornell’s fiscal year 2024 (July 1, 2023 to June 30, 2024), Cornell expended approximately \$30,000,000 on more than 110 awards from DOE. On those

agreements, the University's indirect cost rate was as published and negotiated with the federal government, allowing Cornell to recover approximately \$8,500,000 in reimbursement for those costs from DOE. This cost recovery is key to the successful conduct of the research described below. Decreasing this cost recovery would delay progress for all awards and may result in failure to meet milestones for many. For Cornell's fiscal year 2025 (July 1, 2024 to June 30, 2025), Cornell holds more than 130 awards from DOE. The DOE awards cover activities across Cornell's different locations, including at its primary campus in Ithaca, New York.

5. Cornell's work in fundamental research on sponsored awards, cooperative agreements, and contracts issued by DOE adds immeasurably to our economy and scientific understanding, including discoveries that support manufacturing and industrial efforts vital to national security, American manufacturing, economic competitiveness, and progress toward energy independence.

6. Cornell has produced award-winning work as a result of the vital research efforts that DOE selected the University to perform. For example, in 2024 DOE itself named Héctor D. Abruña, Ph.D., the Émile M. Chamot Professor in the Department of Chemistry and Chemical Biology at Cornell, an Enrico Fermi Presidential Award Laureate for "revolutionizing the fundamental understanding of electroanalytical chemistry and innovating characterization for development of batteries, fuel cells, and energy materials that have led to advancements for the electrical power grid and energy transformation and creation" (<https://science.osti.gov/fermi/Award-Laureates/2020s/2024>). Dr. Abruña currently holds a roughly \$21,000,000 multiyear DOE grant for his Center for Alkaline-Based Energy Solutions (CABES). CABES is a DOE-supported Energy Frontier Research Center that seeks to advance the scientific understanding of the fundamental factors governing electrocatalysis and electrochemical

energy conversion in alkaline media. It is establishing the knowledge base that will enable the use and deployment of cost-effective and high-performance materials in energy conversion technologies, based on “first row” transition metals while eliminating the use of expensive “precious metals,” whose supply is controlled by foreign countries that have a contentious relationship to the United States. These studies have the potential to advance numerous technologies of national interest including defense, transportation, synthetic fuels, upgrading of oil and biomass, metals production, ammonia generation, distributed power, gas infrastructure, and numerous other sectors of the economy. This work for DOE is dependent on access to state-of-the-art instrumentation technology supported in part by indirect costs received through Dr. Abruña’s DOE award, including: (i) scanning electron microscopes (SEMs) with energy dispersive spectroscopy (EDS); (ii) scanning transmission electron microscopes (STEMs) with EELS (electron energy loss spectroscopy) and 4-D STEM capabilities; (iii) x-ray synchrotrons, including the Cornell High Energy Synchrotron Source, APS (advanced photon source), NSLS (National Synchrotron Light Source), and ALS (Advanced Light Source); and (iv) advanced characterization techniques including X-ray diffraction, ICP-MS (inductively coupled plasma – mass spectrometry), NMR (nuclear magnetic resonance), TGA (thermogravimetric analysis), DSC (differential scanning calorimetry) and others. The proposed reduction in the indirect cost recovery rate to 15% would result in extraordinary, irreversible, and irrecoverable damage to DOE’s and CABES’ mutual efforts and objectives. The DOE award provides funding for the efforts of numerous staff and students on this project, and the work funded by the award has already provided critical insights into energy storage, advancing national goals towards energy independence.

7. Dr. Lynden A. Archer, the Joseph Silbert Dean of Engineering and the James A. Friend Family Distinguished Professor of Engineering, has two active DOE awards. One is to

develop novel metal alloys and a process for coating them uniformly on the interior wall of steel vessels to dramatically reduce the cost of nuclear fusion reactors and as a result increase the potential for United States energy independence. The second seeks to develop rechargeable batteries based on abundant metals such as aluminum and zinc, which will simultaneously eliminate United States dependence on lithium-ion batteries produced in other countries for a range of uses, and reduce the cost of battery storage for power back-up and transportation. Reimbursement for indirect costs associated with Dean Archer's DOE grants are crucial to the success of these projects, as they support the operation of the Cornell Center for Materials Research, which operates shared facilities that are necessary for this research to move forward.

8. DOE also supports the Sustainable Energy and Resource Recovery Group at Cornell, led by Greeshma Gadikota, Ph.D., Associate Professor and Croll Sesquicentennial Fellow. This group develops novel technologies for the recovery of energy critical and relevant metals and materials, material- and energy-efficient production of iron and steel, cement with inherent management and use of emissions, and a wide range of energy carriers (e.g., hydrogen, ammonia) for the manufacturing, energy and environmental security of the United States. These efforts are crucial for enabling energy and resource independence of the United States and for training the next generation workforce for advancing domestic energy independence and security. On this project, Cornell works with more than 30 industrial partners in heavy industry (e.g., cement, iron and steel, mining, and energy) to advance energy, resource, and environmental security of the United States. This work requires access to extensive laboratory capabilities with advanced characterization, and sophisticated reactor systems which can be used to demonstrate the feasibility of implementing technologies at the scale needed for domestic energy and resource independence.

9. DOE currently funds three different research projects by Dr. Anna Scaglione, the Stephen M. Ross/Related Companies Professor Chair in the Electrical and Computer Engineering Department at Cornell Tech. Her work focuses on enhancing grid resilience through advanced analytics and artificial intelligence: reducing outages by predicting and mitigating weather-driven outages induced by vegetation; detecting and responding to cyberattacks on distributed energy resources through reinforcement learning agents; and enabling privacy-preserving data sharing to support collective cybersecurity defense without compromising confidentiality. These projects require AI algorithms training and validation that must rely on a shared computing resource developed and maintained by Cornell's Information Technology Service Group, which is supported by the indirect costs on this funded research work. The G2 cluster supports both a general-purpose (public) queue and a preemptible private queue. The latter is dedicated to research groups that have allocated budget toward specific partitions of the cluster, which include access to both GPU and CPU resources.

10. Just a handful of the other awards that DOE has selected Cornell to perform work on include research on: plasma physics research to control fusion and maintain safety and security of nuclear weapons; conversion of cheap carbon dioxide or methane to produce chemical fuels for economic competitiveness in the United States chemical industry; circuit design for artificial intelligence, high performance computing, and quantum technology; better materials for stealth and camouflage technologies; recovery/extraction of rare earth minerals; development of biodegradable plastics that disappear from the environment; simulation tools to make fusion energy a practical reality; clarifying drought risks impacting agriculture in the Western United States; and the contribution of urban land-use development and changes to flood risks in Philadelphia, and the extent to which zoning or other urban development policies can exacerbate

or ameliorate these risks. All of these research projects rely on resources and services that are only available because they are supported, in part, by the indirect cost portions of the DOE awards.

11. In a typical award, the funding amounts must cover both direct costs (expenses directly related to the specific grant activity) and indirect costs. Indirect costs cover essential expenses such as facilities, utilities, financial administration, and operations that enable research to flourish safely and responsibly, such as research compliance and safety programs, and hazardous waste disposal. *See* Office of Management and Budget (“OMB”) Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. §§ 200, *et seq.* (the “Uniform Guidance”). Particularly for the scientific, energy-related, and highly technological work sponsored by the DOE, the need to pay for large computer and science lab start-up and maintenance costs and equipment purchases, information technology and other computer-related services, and research compliance and safety programs, such as hazardous waste disposal and ensuring safety in the use of ionizing radiation and radioactive isotopes, mean that these indirect costs are both considerable and essential for work to continue. Historically, the federal government has used a narrower definition of direct costs than is typical in foundation-funded research, mostly to streamline budgeting and minimize administrative burdens on the agencies. Significantly reducing the allowable indirect cost percentage without altering the way in which costs are classified as direct or indirect significantly disrupts the financial model that has supported needed research and innovation across the United States for decades. As detailed below, changing the funding model would jeopardize the work that Cornell is carrying out for DOE that is having a major, positive impact on the security of the United States and on how the country can best use available resources for energy independence.

12. One example of the type of specialized equipment required for several of the research projects supported by DOE is the Cornell Laboratory for Accelerator-based ScienceS and Education (CLASSE), part of the Cornell High Energy Synchrotron Source. CLASSE operates at the forefront of scientific research, using cutting-edge technologies and techniques involving X-rays and high energy electrons and proton beams to explore the frontiers of physics, chemistry, and material science.

13. As required by the Uniform Guidance, Cornell has negotiated an indirect cost rate with the federal government of up to 64% of modified total direct costs for its Ithaca campus.

14. Although the federal government's portion of funds needed for university research has been declining over time, indirect cost reimbursements are vital to the operation of the nation's federal research system, which includes the sponsored activities conducted at Cornell. Direct costs on DOE awards simply fall well short of covering the real, comprehensive cost of sponsored activities including research, and do not reflect the full facilities and administration costs that Cornell must incur in order to be able to perform the work.

15. As noted above, for Cornell's fiscal year 2024 (July 1, 2023 to June 30, 2024), Cornell expended approximately \$30,000,000 on more than 110 awards from DOE. On those grants, Cornell recovered approximately \$8,500,000 in reimbursement for indirect costs from DOE. Accordingly, the reimbursement of these indirect and vital costs for safe and responsible DOE-sponsored activities represented approximately 29% of the total cost of those DOE-sponsored activities. Cornell's ability to conduct DOE-sponsored research during its fiscal year 2025 (July 1, 2024 to June 30, 2025) under its more than 130 awards from DOE would be irreparably harmed by an immediate reduction in the committed indirect cost reimbursement by DOE, estimated as a shortfall of approximately \$8,000,000 in a typical fiscal year.

16. On April 11, 2025, DOE issued Policy Flash 2025-22, “Adjusting Department of Energy Grant Policy for Institutions of Higher Education (‘IHE’)” (“DOE Policy Flash”). The DOE Policy Flash provides that effective April 11, 2025, indirect costs allowed on all future awards to IHEs will be limited to fifteen percent, and that DOE will also seek “to terminate all grant awards to IHEs that do not conform with this updated policy.”

17. If DOE’s Policy Flash is permitted to remain in effect, it will irreparably harm research at Cornell that directly benefits American scientific supremacy, competitiveness, and our progress towards energy independence. Such a significant decrease in allowable indirect costs on minimal notice—especially with regard to the threat of termination of currently funded awards on which sponsored research activities are in process and for indirect costs that Cornell has already budgeted for in its current and upcoming fiscal years—will immediately impair the University’s ability to conduct sponsored research in compliance with the underlying award agreements and applicable laws regarding research safety and compliance.

18. For example, without continuing indirect cost reimbursement at Cornell’s negotiated rates, Cornell would no longer be able to carry out all of the sponsored activities and properly maintain the facilities and equipment currently in use, jeopardizing the current and future conduct of the DOE-supported projects. The University does not have sufficient budgeted operational funds to cover a sudden structural decrease in indirect cost recovery for existing awards on an ongoing basis, and would be required to consider layoffs, both for research staff and research administration officers and other employees of the university who perform critical but indirect work in support of sponsored activity, and reductions in administrative costs necessary for research services. This harm is not limited to monetary damages that can be rectified with a compensatory award. The infrastructure harm that would be associated with a sudden loss of support would

negatively impact the training environment for the University's students and post-graduate trainees who are the future scientists for the United States. Loss of support would at a minimum increase time for them to complete their degrees, and for some, would require that they find new research mentors and abandon their projects. For example, even if the indirect cost rate is increased at a later date, if a research facility must be closed in the interim because its operation and maintenance can no longer be supported, Cornell will immediately lose its investment in that infrastructure and have a diminished ability to undertake that research in the future, even if the DOE Policy Flash were rescinded or invalidated. Further, Cornell may no longer have the key personnel or materials needed to restart or carry out certain sponsored activities.

19. It will also adversely, and irreversibly, affect the training of the next generation of energy scientists and technologists, critical to national needs and energy security. In particular, we train scientists to work in collaborative, team-based environments which mirror how organizations function beyond academia. These programs increase productivity and flexibility of the nation's workforce, enabling them to excel in private industry across multiple sectors of the economy.

20. Cornell necessarily relies on both the direct cost and the indirect cost portions of funding provided with each specific DOE award in formulating its overall operating budget in any given year. Operating budgets rely upon estimates of direct and indirect sponsored funding to plan for annual staffing needs, infrastructure support (*e.g.*, IT networks, regulatory compliance, and grant management support), facility building and renovation, and equipment purchases to support a broad range of overlapping research activities.

21. In addition, the DOE Policy Flash will undermine the feasibility of sponsored activity that results in scientific breakthroughs that provide significant social and economic value to the country, sometimes opening up entirely new areas of commercial development. The United

States is a stronger, more secure, and more economically vibrant country as a result of the collective benefits arising from federally sponsored research. Additionally, the next generation of scientists, physicians, engineers, and other skilled workers develop their vitally important expertise while learning and working at research institutions such as Cornell. The DOE Policy Flash would significantly reduce the positive impact of this work and the pipeline of educated professionals that United States industry requires to be internationally competitive. Slowdowns or halts in research by Cornell and other American universities will allow competitor nations that are maintaining their investments in research to surpass the United States on this front, threatening our nation's national security and its economic dominance.

22. Temporary injunctive relief is vital to protect against these harmful consequences. Even if the DOE Policy Flash is ultimately rescinded or held invalid, Cornell does not have the ability to cover this reduction in indirect cost reimbursement during the course of protracted litigation. Cornell's existing endowment cannot simply be redirected to pick up these losses. The vast majority of endowed funds are restricted by the terms on which the funds were donated to the University and cannot legally be used to cover research infrastructure costs. Moreover, Cornell may only draw down the portion of the endowment that is unrestricted at a rate that complies with New York State law.

23. As a non-profit institution, Cornell reinvests nearly all of its revenue into mission-critical activities, leaving little margin to absorb unexpected funding gaps. In other words, unlike for-profit organizations, Cornell does not generate significant surpluses that could be redirected without impacting core academic priorities such as educational programs and financial aid support for students.

24. Moreover, absorbing the cost of a lower indirect cost rate, even if it were possible, would create long-term budget pressures on Cornell—which would in turn force reductions in key investments supporting Cornell’s faculty, students, staff, research, and teaching infrastructure, as well as other critical activities needed to maintain Cornell’s academic excellence.

I declare under penalty of perjury that the foregoing is true and correct.

Dated: Ithaca, New York
April 13, 2025



KAVITA BALA, PH.D.